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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LESTER, EVELYN A

ART UNIT PAPER NUMBER

2873

DATE MAILED: 09/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/497,552

Applicant(s)

OLIVA, GUIDO MAURIZIO

Examiner

Evelyn A. Lester

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Final Rejection Withdrawn

1. The finality of the last office action, mailed on 1-15-2003, is hereby withdrawn.

Please note the following office action:

Specification

2. Please note at page 15, line 31, the phrase "see Figure 8" should read ---see Figure 9---. Correction is required.

Claim Rejections - 35 USC § 112

3. Claims 1, 2, 4-25 and 27-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to all of the above claims, the functional limitation of "a fixed reading direction" renders the claims indefinite because the phrase has no apparent context. There are no defined structural attributes that could provide for this functional limitation; therefore the scope of the claimed invention is vague and confusing. Further, the preamble merely cites an "[o]ptical device for focusing a laser beam" wherein, to one of ordinary skill in the art, may be interpreted as encompassing a wide variety of optical devices. Without evidence of specific structure, it is unclear what and how "a fixed reading direction" can be achieved, thereby rendering the claims indefinite.

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With respect to claims 7 and 8, at line 1, there is no antecedent basis for "said coating means."

With respect to claim 7, at line 3, there is no antecedent basis for "the source of emission."

With respect to claim 15, "types of lens" is indefinite. The addition of the word "type" to an otherwise definite expression extends the scope of the expression so as to render it indefinite. See MPEP 2173.05(b)(E).

With respect to claims 16-25 and 30, there is no antecedent basis for "the source of emission." The claims have been amended from the originally filed claims, which had provided the source of emission.

With respect to claim 31, there is no antecedent basis for "the displacement means," "the laser diode," "the laser diode displacement means."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

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directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 32-35 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Nomura et al (U.S. patent 6,342,976 B1).

Nomura et al discloses the claimed invention of an optical device for focusing a laser beam, wherein the optical device comprises a single optical element upon which the laser beam is directed, and the single optical element comprises a focusing lens (5) in a central portion (11) of the optical element and a first means (12) of a diaphragm or reflective material (i.e. opaque) in a surrounding portion of the optical element and around an outer edge of the focusing lens, which is adapted to separate a central portion of the laser beam from a surrounding portion of the laser beam and wherein the entire central portion of the laser beam collected by the lens is focused. Please note Nomura et al at Figures 2, 3A and 4, and their accompanying text; as well as at column 2, lines 29-38 and column 6, lines 3-37.

It is noted that the Examiner has insufficient teaching and/or means to determine if the Fresnel number limitation of claim 36 is met or not by Nomura et al.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 4, 5, 9, 16, 22, 24, 26 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Metlitsky et al (U.S. patent 5,233,170).

Metlitsky et al discloses an optical device having a laser diode comprising a focusing lens (34) which the laser beam is directed toward, and a means for selection only of a central portion of the laser beam and wherein the selection means is directly applied on the focusing lens and defines an aperture which inherently includes a Fresnel number. Metlitsky et al does not explicitly teach a Fresnel number value of < 2 . However, Metlitsky does teach various parameters that are used to figure out the Fresnel number.

Since the Fresnel number is given as:

$$N = a^2 / \lambda * Z$$

Wherein "a" is half the size of the aperture in the direction in which the diameter is measured, " λ " is the wavelength and "Z" is the actual distance of observation (all of these parameter definitions taken from the Applicant's specification on page 7). The Applicant's specification teaches that the diameter of the aperture is greater than 0.5 mm and smaller than 2 mm. Metlitsky et al teaches that the aperture diameter is 1 mm (col. 5, lines 62-64), well within the taught optimum value range. The wavelength is not specifically given in either the Applicant's specification or the Metlitsky et al patent, however, both teach that a laser diode is employed in analogous art devices, i.e. bar code readers. Therefore, the range of wavelengths would be known to be very close, if

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not the same. As for the actual distance of observation, parameter "Z", both the Applicant's specification and Metlitsky et al fail to give actual values for this parameter, however, it is well accepted that the optical readers of these inventions have a predetermined distance of observation, which are within a particular operating range. Note Metlitsky et al at column 5, lines 14-20.

Therefore, in light of the teachings, it is well understood that one of ordinary skill in the art at the time of the invention was made would have known to provide an aperture with a Fresnel number less than 2, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

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patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1, 2, 4, 5, 11-15, 26, 29 and 32-36 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 6-14 and 17 of copending Application No. 09/773,384 (which is also published application number US 2002/0050517 A1, filed on February 1, 2001).

Although the conflicting claims are not identical, they are not patentably distinct from each other because each claimed invention of the applications is merely a variation of the other, wherein one invention would anticipate the other.

Each claimed invention recites an optical device, wherein a laser light beam is focused by a focusing lens and a first means or a diaphragm, directly on the focusing lens (claim 1 of the instant invention and claim 13 of the other application's claimed invention) which selects only a central portion of the laser beam, and further wherein the first means or diaphragm defines an aperture having a Fresnel number less than 2. The copending application's claimed invention further describes a source of a laser light beam. However, this is inherent to the present claimed invention, which claims a laser beam. One of ordinary skill in the art would know to provide a source of laser light to provide the appropriate laser beam for the claimed optical device.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

8. Claims 27 and 28 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

9. Claims 6-8, 10, 17-21, 23, 25, 30 and 31 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not show or fairly suggest the claimed subject matter having the claimed structure and claimed limitations, wherein a rejection under 35 USC 102 or 103 would be improper. Please particularly note the combination of claimed elements and claimed limitations, including with respect to claim 27 and 6, the first means comprising a coating of opaque material; with respect to claim 10, an adhesive between the diaphragm and the focusing lens; with respect to claim 14, a means adapted to separate the central portion on a single optical element is a surface made of a diffusing material; with respect to claim 17, the focusing lens comprising a tubular portion of lens having an inner wall provided with at least two teeth extended in a radial direction and

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the housing and support structure details; with respect to claim 21, the alignment means comprising at least two strips and are adapted to be mounted by interference on a support structure; with respect to claim 23, the focusing lens has a reference notch details; with respect to claim 25, the container having an internal guide and its details; with respect to claim 28, an optical element with a focusing lens and a diaphragm which have opposed front surfaces with conjugated shape and adapted to be reciprocally coupled and having an aperture with a specific Fresnel number less than 2; with respect to claim 30, the support frame and automatic displacement means details; and with respect to claim 31, the displacement means and method step limitations. Therefore, in light of the Applicants' arguments and/or amendments, the claimed subject matter is considered to be allowable as being novel and nonobvious over the prior art.

Response to Arguments

11. Applicant's arguments with respect to claims 1, 2, 4-36 have been considered but are moot in view of the new ground(s) of rejection.

With respect to the provisional obviousness-type double patenting rejection, since this is not the only rejection remaining in this application, it is hereby maintained.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Otsuki et al (U.S. patent 6,356,398 B1) discloses a lens having a diaphragm at the outer portion.


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Hunzinger (U.S. patent 3,764,198) discloses a single lens with a diaphragm on one of its surfaces.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evelyn A. Lester whose telephone number is (703) 308-4943. The examiner can normally be reached on M- F, subject to I-flex schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (703) 308-4883. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


Evelyn A. Lester
Primary Examiner
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